

5000 SERIES LCR METER



- 4 Digits Large Scale LED for L, C, R, D, Q, ESR, EPR Display
- 0.2% Basic Accuracy
- Test Frequency 100Hz, 120Hz, 1KHz, 10KHz* (* Model: 5030, 5040 only)
- HI-LO Comparator (Model: 5020, 5040 only)
- Automatic Self Function Test, Open CAL, Short CAL
- Wide Measurement Range
- External Bias 0~60V Available

5000 SERIES SPECIFICATION

PARAMETERS TESTED	L/Q, L/R C/D, C/Q, C/R, R/Q.
DISPLAY DIGIT	L, C, R: 4 Digit D,Q: 4 Digit 0.56" LED Display
EQUIVALENT CIRCUIT	Series or Parallel.
TEST FREQUENCY	100Hz, 120Hz, 1KHz, 10KHz* (* Model: 5030, 5040 only)
TEST LEVEL	500mV $\pm$ 10%
DC BIAS	External Bias 0~60V, 250mA Max
DISPLAY RANGE	L: 0.001 μ H~9999H C: 0.001pF~9999mF R: 0.001 Ω ~9999M Ω D: 0.001~9999 Q: 0.001~9999
RANGE	Automatic Ranging
TEST MODE	Auto or Manual
TEST TIME	0.5 Sec/Test at 1KHz
DIMENSION	300mm(W) $\times$ 105mm(H) $\times$ 402mm(D)
WEIGHT	5 Kg
POWER	100~130V or 200~260V, 50/60Hz, 45VA
STANDARD ACCESSORY	External Bias Lead (ACS-002), Short Plate, AC Power Cord, Instruction Manual
OPTION ACCESSORY	Axial Component Adaptor (ACS-007), Kelvin Clip Lead Set (ACS-009), External Test Fixture (ACS-012, Including Shorting Bar), Chip Component Test Fixture (ACS-013)

ACCURACY:

LCR: $\pm 0.2\%$ in Basic Range, Refer to the Accuracy Figure

$$D, Q: \pm \frac{0.0005(1 \pm (D, Q)^2)}{1 \pm 0.0005 D, Q} \pm 0.001$$

$$Z_{\text{ERROR}} = 0.025\% \left(\frac{Z^2 + 3Z \times 10^N + 2 \times 10^{2N}}{Z \times 10^N} \right) (1 + F) K$$

WHERE:

Z: Dut Impedance (ohms)

N: Refer to Table-1 range number minus 1

F: Dependent on Dut Type, R Use Q, C Use D, L Use Q

K: Refer to Table-2

Table - 1

Range	R	C	L
1	below 5 Ω	below 31.83uf	below 795.7uH
2	5-50 Ω	31.83-318.3uf	795.7uH-7.957mH
3	50-500 Ω	318.3uf-318.3nf	7.957mH-79.57mH
4	500-5K Ω	318.3nf-31.83nf	79.57mH-795.7mH
5	5K-50K Ω	31.83nf-3.183nf	795.7mH-7.957H
6	Above 50K Ω	Above 3.183nf	Above 7.957H

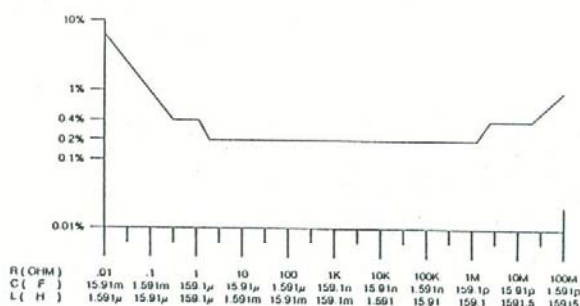
Table-2

FREQUENCY	K
100Hz	4
120Hz	4
1KHz	2
10KHz	4

ACCURACY FIGURE

TEST CONDITIONS:

1. LEVEL 500mV
DC BIAS 0V
2. FREQ: 1 KHZ
3. DUT TYPE: R,Q $\ll$ 1
DUT TYPE: L,Q $\gg$ 1
DUT TYPE: C,D $\ll$ 1



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